

Environment and Landscape

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It is not unusual in archaeology to begin the study of a site or region's history by reviewing or giving some kind of account of present-day, and past, environmental conditions. This often includes the geology, vegetation, and fauna, along with climate, and, on some occasions (such as at Newgrange, Knowth and Dowth in Ireland, Stonehenge in the United Kingdom, and some ancient Pueblo sites in the four-corners region of the United States), astronomical observations. These descriptions are usually presented as external conditions that help us better understand the physical contexts of the cultural sites in question. We thus describe the topography, soils, trees, and animals, rainfall and temperature, even the sun, moon, and stars, as a way to better identify the regional contexts of archaeological sites, and how those sites sit in a broader physical universe. We do so to better identify those outside conditions within which people are located—the “where” of the places that people did things in the past. Such descriptions of the physical environment are presented as a way to better understand the physical conditions that affected human actions. People did things through a combination of conscious intentions and subliminal influences, and those environments affected their decision making as constraints and opportunities of living in a material world.

Yet there is a problem with this view of human actions in the environment. In trying to understand the physical conditions of engagement—as this essentially divided dual “environment/people” way of conceptualizing human actions in place does—what we attempt

to understand are landscape engagements that are rich in cultural *meaning*. It is through this meaningfulness that people created individual archaeological “sites” as particular positionings of social actions. And it is also through meaningful emplacement that relations with nearby and more distant features (including other “sites”) are formed. Those meaningful locations are places whose social and cultural sensibilities archaeologists try to understand.

The concept of “landscape,” here used as shorthand for the totality of “scapes,” includes the land, water, and sky. The term “landscape” was first introduced into the English language during the late sixteenth century, when Dutch *landschap* artists depicted rural vistas as visual representations of domestic country scenes. Since the 1980s, Anglophone archaeologists in particular have become increasingly interested in anthropological and philosophical notions of “dwelling” (Ingold 2000) and “inhabitation” (Thomas 2008)—that is, of how cultures and social actions are located in particular world-views (ontological relations), of how human actions are acted out in a world made sense of through its meaningfulness, and by how the world is rendered in culture. No longer do we tend to reduce the past to the actions of “humans” who are more or less biological automata, individuals and individual societies who simply act to survive and whose behaviors at any point in time and place can be worked out simply by understanding the physical environments in which they hunt, gather, raise livestock, or grow crops. We have come to examine relationships between people and between people and things, how in the past people actively engaged in a meaningful world through the way they understood it to operate, and through how it is represented in culture. French archaeologists employ a term, “*le geste*,” to denote this human touch in, and of, the world. It is a useful word, without exact equivalent in English, although “gesture” comes close, because *geste* denotes how the things we do are socially inscribed with meaning. We can think of the hand that paints as a *geste*, as are the actions that lead to the making of a site. These involve intended, culturally

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informed, and socially sensitive actions, even if subliminal forces are also at stake and if the outcome is not exactly what was intended at the start. Archaeological objects, and archaeological sites, are gestural signatures; they are the “scapes” of cultural actions. This, then, becomes the key difference between the “environment” and “landscape” of the language of archaeology: At first the word “environment” was adopted as a way of describing the physical environment that surrounded and affected human actions; and, later, “landscape” emerged as a way of nuancing more the notion that from the outset people are born into already-meaningful worlds (sometimes explicitly expressed in Heideggerian phenomenological terms, as “being-in-the-world”), so that to understand actions we need to understand their meaningfulness as much as we need to understand the material properties of things.

Let us give an example of how place is inhabited in this cultural way, how its imbued social meanings help structure social engagement, by reference to Australian ethnography. Our aim here is to demonstrate how what is often thought of as external environment is in fact more than this when dealing with the actions of people, with human *gestes* and cultural history. Landscapes are meaningfully engaged and understood through world-views that we can think of as both ontology (the way we understand the world to *be*) and cosmology (in archaeology, this term is usually used in a way that nuances the mysteries and esoteric/spiritual constructs of cultural groups, unlike in western astrophysics where it refers to those dimensions of astronomy that concern the physical structure and evolution of the universe). Those world-views guide the ways people think about and act, so much so that archaeological sites become structured not just by the lay of the land as physical phenomena, but by the lay of the land as ontologically ordered phenomena.

The anthropologist Marcia Langton (2002) gives a useful night-sky analogy to illustrate the point. What we see in the sky are not only planets, stars, and other physical bodies, but something much grander: a confirmation of what we already know about how the world operates—time, life, our place in the universe. What we see as tiny bright dots on a black, blank canvas, we know to be gigantic balls of fire whose light emanates across space as time progresses, literally at the

speed of light, reaching us in the here and now as the night-sky that we gaze upon. It is not simply that we see these cosmic realities with our own eyes and so we believe, but rather we already understand this to be the case as we gaze at the stars; the stars are already there as meaningful entities. What we see is not abstract visual space, but rather cultural places already rich in meaning, in this case informed by astronomy and related disciplines.

But this is not the only way of seeing the night-sky. In Aboriginal Australia, the trees and hills and fauna, and the stars, are emanations not of western botanical, geological, zoological, or astronomical knowledge, but of the numinous ancestral forces that give shape to place as *country*, the meaningful homeland into which all things are given their defining characteristics in the creative events of “the Dreaming,” a landscape that is as much kin as it is “environment.” Those kin relations that people have with the sky, for example, affect everyday life here on earth, for they intimately connect people with topographic features created by the ancestral beings. All of society is implicated by those features, because the ancestral beings have particular kinds of relationships with everyone (everyone is connected with individual places through those particular ancestral connections), and everyone is connected with each other in specific ways. Those connections demand exacting forms of behavior—the social rules and guidelines reported by community members and social anthropologists. The ontological, social connections between people and features of the landscape affect what people do in particular locations, and this helps structure the archaeological record of each and every site.

For example, in the ethnographic traditions of Australian Aboriginal and Torres Strait Islander cultures, social life (including, but not reducible to, subsistence) is intricately linked to the sky. Many traditions explain that what is on the land is connected to, and reflected in, the sky. Torres Strait (the island-clad sea between northeastern Australia and the southern New Guinea coast) Islander ways of being and ways of knowing are closely connected to the stars. Islander cosmology is based on the story of the culture hero Tagai (Sharp 1993). Tagai was a great fisherman and warrior. During a fishing expedition with his crew

of twelve men (Zugubal) and his first mate Kareg, Tagai searched the reef for a suitable fishing spot. Hot and frustrated, the Zugubal consumed Tagai's rations, angering him upon his return. Tagai killed the Zugubal, who were cast into the sky (after being drowned) as two groups of stars: Usiam (the Pleiades star cluster) and Utimal/Seg (the belt and scabbard stars of Orion). Tagai and Kareg went to the opposite side of the sky to keep away from the selfish Zugubal. Tagai comprises several western constellations spanning across the sky from the Southern Cross (Crux) to Corvus, standing on his canoe (Scorpius) with Kareg (the star Antares) at the stern.

The story of Tagai encompasses themes that provide instruction for laws and customs that inform Islander identity and spirituality. These themes influence social-cultural traditions, but also describe knowledge about the interplay between Islanders and the places in which they live (Sharp 1993, 3–5). The Tagai narrative establishes connections between the rising and setting of stars at dusk and dawn throughout the year and their connection to changing seasons, which inform weather, climate, food sources and means of procurement, social events, and how people see the world to operate generally. In doing so, they affect how people engage in places, and thus how and why (archaeological) sites are formed. Islander epistemologies draw upon causal relationships between the land and the sky. For example, as the Zugubal rise in the evening sky, they announce their presence with thunder, signaling the coming of *kuki*, or monsoon season (Eseli et al. 1998). During this time, Tagai and Kareg set in the west. As they set into the sea, they splash water into the sky, which falls as the rains of the monsoon season (Sharp 1993, 60).

This knowledge is encoded in song, dance, and ceremony, which incorporate masks and dance machines and are often performed at sacred sites at significant times of the year. The Kek ceremony on Mabuyag is performed when Kek, the yam star, rises in the dawn sky just before sunrise (Haddon 1904, 339). Regarded as the Islander New Year by many communities, the rising of Kek at dawn signals the approaching dry season, the southeasterly winds, and the time to harvest yams. The Kek ceremony is performed at a site on the southeast coast of the sacred islet of Pulu off the western coast of Mabuyag. It serves as

a sign of thanks and as an increase ceremony. The ceremonial ground on Pulu faces the star as it rises in the southeast over Baudhar (Mount Augustus) on the nearby island of Mua (Haddon, Rivers, and Ray 1912, 223). This is all part of the Torres Strait landscape, but in archaeology it would not normally be treated as a description of the environment.

Similarly, in Aboriginal traditions of the ethnographic period across much of Australia, ancestral beings created the world before ascending to the sky, where they watch over the world as stars and planets. Their actions are often denoted by transient celestial events, such as comets, meteors, aurorae, and eclipses, particularly as warnings to obey sacred law. Many beings are represented not by constellations of stars, but by “dark constellations” traced out by the dust lanes in the Milky Way. Among the best known and widespread examples is that of the celestial emu. The emu's head is represented by the Coalsack nebula, which borders Crux. The neck stretches down through the constellation Centaurus and the flightless bird's body is the galactic bulge of the Milky Way in Scorpius, with its legs stretching down through Sagittarius.

In Euahlayi traditions of northwestern New South Wales (Fuller et al. 2014), the emu first appears in the evening skies during April and May as a female chasing a male for mating. In June–July, when the emu is higher in the sky, it represents a male sitting on the nest. This is when eggs can be collected as a food source. In November, when only the bum of the emu is visible in the sky, the emus are sitting in waterholes. In the summer, the sky emu mostly disappears, meaning the emus are leaving the waterholes as they dry up (Figure 1).

The celestial emu also informs ceremony through connections between the land and the sky. Many initiation sites in southeastern Australia comprise two circles connected by a pathway. The ceremonial ground is reflected in the Milky Way as the celestial emu (Fuller, Hamacher, and Norris 2013). Many initiation ceremonies in southeastern Australia are held when the sky emu aligns with the terrestrial ceremonial ground as they link on the horizon in the southwest. This coincides with August and September, when emu chicks have hatched

and are nurtured by male emus. This symbolizes the elder men bringing the boys into manhood through initiation.

Many of these ceremonial sites have been identified and mapped during field surveys by archaeologists. Today, we make sense of them through the ways people engaged with *their* world—that is, through notions of “landscape” as cultural constructs, more so than “environment” as fixed and all-endearing entities—for it is in the way that people related to the stars, to the land, and to each other as connected beings that the archaeological sites can be understood as

social and cultural places. Landscapes express place and emplacement as ontologically informed and socially engaged. And, through time, it is those shifting constructs that archaeologists investigate. We can, and do, look at all kinds of places through this landscape lens: at broad geographical scales, how people interact across wide expanses of sea, such as in the western Pacific where Lapita colonizers made far-flung places their own, culturally and socially domesticating space in the process. At a smaller geographical scale, we explore how new social worlds were made when people built stone or earth channels

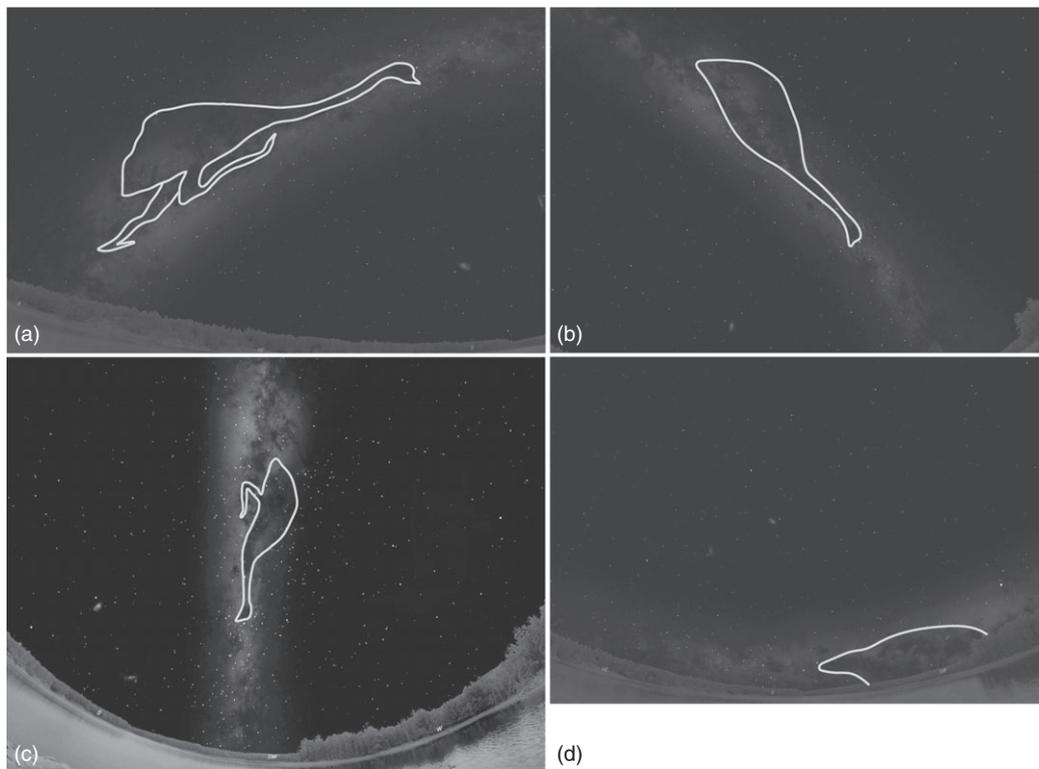


Figure 1 Changing view of the emu in the sky, according to Euahlayi Aboriginal traditions (New South Wales, Australia). (a) Female emu chasing a mate. (b) Male emu incubating eggs. (c) Eggs hatch and male emu begins rearing the young. This occurs during the time of year when male initiation ceremonies are undertaken. Sacred *bora* grounds where initiation ceremonies are performed align spatially with the axis of the celestial emu, which itself represents the sky *bora*, creating a pathway from earth to sky through the Milky Way in the southwest. Here the place of social activity (identified by archaeologists as a particular kind of “site”) was created by reference to local indigenous cosmologies. (d) Emu sitting in a waterhole in late spring. The emu leaves the waterhole as it dries up in summer; this is a time when the celestial emu dips below the horizon.

Source: Images published with permission of the authors, Fuller et al. (2014).

as conduits for flood waters populated with eels, allowing the mass capture of eels and creating new seasonal schedules and networks of social interaction in the process (e.g., McNiven et al. 2012). At a smaller scale still, individual sites are now examined for how people are implicated in them, and, in doing so, how the very fabric of the sites progressively changed and grew through those social engagements, such as at Nawarla Gabarnmang (Australia) and Chauvet Cave (France) (Delannoy et al. 2013) and barrows of the British landscape (e.g., McFadyen 2008). The archaeological sites are architectural locations where people undertook, and engineered, socially and culturally meaningful actions. In “landscape,” the environment is not simply outside, but also inside; nor is it simply about the navigation of terrain towards the consumption of “resources” as food—the starscapes of Torres Strait Islander and Aboriginal peoples illustrate this point nicely. Rather, by examining spatial and temporal patterns in the products of past social and cultural engagements at varied geographical scales, the history of the meaningfulness of “the environment” as landscape, of the *gestes* performed, allows us to better understand the human past.

SEE ALSO: Heritage and Landscapes; Inhabited Landscapes

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